

**CARLSON ENVIRONMENTAL, INC.**

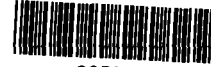
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File

October 15, 1999

Mr. Marc Cummings, Project Manager
Site Remediation Program
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Springfield, Illinois 62702

EPA Region 5 Records Ctr.



235054

Subject: Additional Actions Required to Obtain an NFR Letter
Lockformer Property
Lisle, Illinois

Dear Mark:

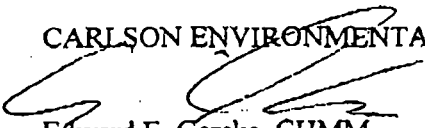
Please find enclosed a flow chart and a list of the various tasks, that Carlson Environmental Inc. (CEI), plans to perform on behalf of The Lockformer Company with regards to obtaining a No Further Remediation (NFR) Letter from the Illinois Environmental Protection Agency (IEPA). CEI believes that these task will resolve the data gaps that currently exist with regards to fully investigating the subject property.

At this time we are asking for you to please review our proposed tasks and flow chart, and comment on whether or not there are any more tasks that you would require before presenting the information to CORE for and NFR Letter. We understand that you can not comment on whether or not CORE will approve of the NFR request. In addition, we understand that if the finding of the additional proposed tasks indicate additional contamination and/or information contrary to what is current indicated, that additional investigations and work may be required.

If you have any questions or require additional information, please feel free to contact me at 312/346-2140.

Respectfully submitted,

CARLSON ENVIRONMENTAL, INC.



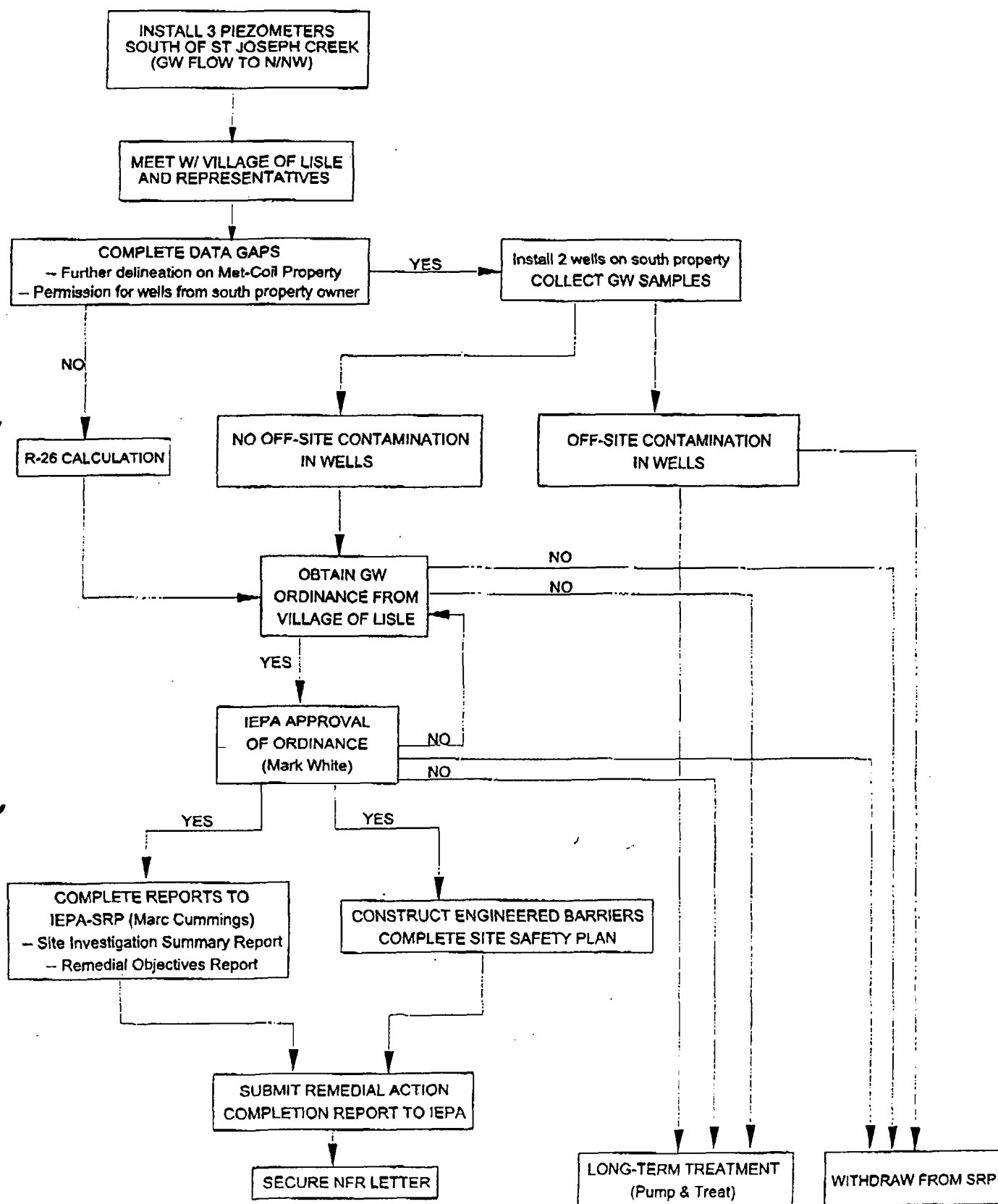
Edward E. Garske, CHMM
Vice President

cc: Mr. Dan Beiderman, Chuhak & Tecson
Mr. Rian Scheel, The Lockformer Company

**CARLSON ENVIRONMENTAL, INC.****STEPS TO SECURE NO FURTHER REMEDIATION LETTER (NFR)
FROM ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA)
SITE REMEDIATION PROGRAM**

- Install three piezometers south of St. Joseph Creek to show ground water is up gradient from source area.
- Delineate soil and ground water contamination on Met-Coil property to the west / southwest by installing three additional wells to the west / southwest and five additional deep soil borings.
- Get permission from off-site property owner to south to install two ground water monitoring wells on that property.
- If ground water contamination is not evident in the newly installed wells on the south property, the following additional steps are to be taken:
 - Conduct R-26 calculation (from well showing the greatest level of contamination screened within the aquifer)
 - Obtain ground water ordinance from Village of Lisle
 - Obtain IEPA approval of Village of Lisle ground water ordinance
 - Complete required reports and forward to IEPA-SRP; Site Investigation Summary Report, Remediation Objectives Report, Site Health and Safety Plan
 - Construct and maintain engineered barriers
 - Submit Remedial Action Completion Report and forward to IEPA-SRP
 - NFR Letter granted by IEPA-SRP

**ACTION PLAN RESPONSE TO SECURE NFR LETTER
AT LOCKFORMER (AS OF OCTOBER 8, 1999)**





ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276

THOMAS V. SKINNER, DIRECTOR

(217) 782-6761

Certified # 416 154 998

October 20, 1999

Lisa Meagher, P.G., Project Manager
Carlson Environmental, Inc.
65 East Wacker Place, Suite 1500
Chicago, Illinois 60601

Re: 0430555004 -- DuPage County
Lisle/Lockformer Company
Site Remediation/Technical Reports

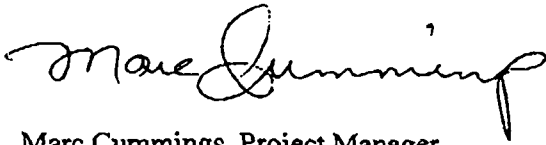
Dear Ms. Meagher:

The Illinois Environmental Protection Agency (Illinois EPA) has completed a review of the October 15, 1999 Additional Actions Required to Obtain an NFR Letter document (Document). The Document submitted by Carlson Environmental, Inc., on behalf of The Lockformer Company was received by the Illinois EPA on October 18, 1999(Log# 99-2122). The Illinois EPA approves of the Document with the following comments.

1. Because there is contaminated groundwater on-site, any future no further remediation (NFR) letter will prohibit further use of the on-site production water well, whether or not contaminated groundwater migrates beyond Lockformer's property boundary. This prohibition will exist whether the Village of Lisle obtains an Illinois EPA approved ordinance prohibiting the use of groundwater within the Village's corporate limits.
2. The Illinois EPA strongly recommends Lockformer not withdraw from the Site Remediation Program (SRP) if the Village of Lisle does not adopt an ordinance prohibiting the use of groundwater within the Village corporate limits.


Please provide the Illinois EPA with two (2) copies of any future information submitted regarding the above referenced site. The Illinois EPA also requests not less than fourteen (14) days notification of all site investigation and remedial activities to coordinate oversight. This notification is particularly important when groundwater and soil samples will be collected. If you have any questions, please feel free to contact me at (217) 782-9079 or the above address.

Sincerely,



Marc Cummings, Project Manager
Voluntary Site Remediation Unit B
Remedial Project Management Section
Division of Remediation Management
Bureau of Land

a:\ckfraar.wpd

 cc: Mr. Rian Scheel, Vice President
The Lockformer Company
711 Ogden Avenue
Lisle, Illinois 60532-1399



The Arboretum Village

VILLAGE OF LISLE

"Small Enough To Be Your Neighbor, Large Enough To Serve Your Needs"

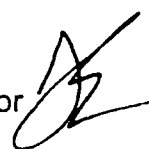
1040 Burlington Avenue

Lisle, Illinois 60532-1898

INTEROFFICE MEMO

DATE: October 20, 1999

TO: Carl Doerr, Village Manager

FROM: Thomas F. Ewers, Community Development Director 

RE: 803 Ogden Avenue – Sanitary Sewer Chemical Event

Attached please find an August 11, 1999 letter from Richard Pace, Lisle Site Construction Engineer. Since receiving that letter, I attempted to contact Dan Chlebanowski of the DuPage County Health Department Division of the DuPage County Public Works Department (985-7400) in order to determine what follow up actions they may have taken in regards to the event described on Rick Pace's letter.

Today I was finally able to talk to Dan Chlebanowski on the telephone. He did indicate that the Health Department had completed tests of the sanitary effluent in the sanitary sewers in the area of Lockformer. He indicated that the trace levels of TCE were in the parts per billion rather than parts per million and were, therefore, below acceptable levels by a factor of one million.

In our conversation we surmised that the TCE was both airborne and waterborne. For whatever reason, there may have been some pocket of airborne TCE that was penetrated when contractors broke into the sanitary sewer. This airborne TCE was quickly dissipated. The levels of TCE in the sanitary sewer effluent are negligible and pose no health risk.

Dan Chlebanowski also indicated that the DuPage County Health Department was aware of the TCE incident at the Lockformer site and they were letting the State of Illinois Environmental Protection Agency handle this issue.

October 15, 1999

Page 2

This concludes my report on the June 11, 1999 possible chemical release event at 803 Ogden Avenue. The DuPage County Health Department has completed additional tests of the sanitary sewers in the area and have not found dangerous levels of any chemical. As you know, we will be working with other environmental engineers to do further tests of the soils, ground water, and sanitary and storm sewers in the area in the near future. I hope this information is helpful. Please forward this information to any appropriate parties including the Village of Lisle Board of Trustees.

TFE/rl

Cc: Iain Vasey, Economic Development Director – Attachment
Rick Pace, Engineering Construction Observer – Attachment
711 Ogden Avenue Pending File – Attachment
Correspondence File – Attachment

MORRIS

ENGINEERING INC

Municipal & Environmental Consulting Engineers

August 11, 1999

Lisle Building Department
1040 Burlington Avenue
Lisle, IL 60532
Attn: Tom Ewers

RE: Lisle Office Building/Ogden Corporate Center

Dear Mr. Ewers:

On June 11, 1999 approximately mid day, I conducted an inspection on an existing sanitary manhole at the above referenced project. This manhole is located on the east property line of the Lisle Post Office, approximately 200' south of Ogden. Goss Plumbing was on site reconstructing the manhole into a drop manhole. This manhole would eventually service the proposed Lisle Office Building. While Goss Plumbing was working on the manhole they were overcome with fumes. One laborer became dizzy and had to leave the immediate work area. I was asked by Goss Plumbing to confirm these "fumes." I confirmed these fumes as inorganic in nature. The fumes were very strong and smelled like a petroleum distillate or solvent. The flow direction of effluent in this existing sanitary line flows east to west.

I immediately telephoned the Village Engineer and he advised me to notify the Public Works Director, Ray Peterson, which I did. Mr. Peterson had said he would notify the DuPage County Health Department.

If you require further information regarding this issue please advise.

Sincerely,



Richard Pace
Lisle Site Construction Engineer

RP/jb8.12.1

MORRIS

ENGINEERING INC

Municipal & Environmental Consulting Engineers

August 11, 1999

Lisle Building Department
1040 Burlington Avenue
Lisle, IL 60532
Attn: Tom Ewers

RE: Lisle Office Building/Ogden Corporate Center

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I immediately telephoned the Village Engineer and he advised me to notify the Public Works Director, Ray Peterson, which I did. Mr. Peterson had said he would notify the DuPage County Health Department.

If you require further information regarding this issue please advise.

Sincerely,

Richard Pace

Richard Pace
Lisle Site Construction Engineer

DUP. CO. HEALTH DEPT. P.W.
NANCY GORSKI

985-7400

DAN CHLEBANOWSKI
985-7400 V.M. 8/23

RP/jb8.12.1



The Arboretum Village

VILLAGE OF LISLE

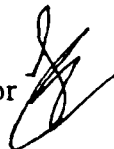
"Small Enough To Be Your Neighbor, Large Enough To Serve Your Needs"

1040 Burlington Avenue

Lisle, Illinois 60532-1898

Interoffice Memo

TO: Tim Klass, Village Engineer

FROM: Thomas F. Ewers, Community Development Director 

DATE: August 10, 1999

RE: Right-of-way permits for Carlson Environmental, Inc.

Attached please find a copy of July 30, 1999 letter from Carlson Environmental, Inc. We are working with Lock Former to remediate an environmental issue that includes some possible ground water contamination in the area of Lock Former. In order to prove that there is no contamination south of the Railroad Tracks and south of St. Joseph Creek the environmental contractor for Lock Former wishes to install three piezometers in Village of Lisle streets.

I would ask that you contact Lisa Meagher of Carlson Environmental, Inc. with the necessary permit applications, bond requirements, and certificate of insurance requirements.

This matter is currently before the Village of Lisle Board of Trustees and we are seeking an answer as quickly as possible so any help you could offer to get the necessary right-of-way permits to Carlson Environmental, Inc. would be appreciated. Thank you very much.

TFE/lav:8.6.2
Attachments

cc: Carl Doerr, Village Manager
Iain Vasey, Economic Development Director
711 Ogden Avenue Pending File
Correspondence File



CARLSON ENVIRONMENTAL, INC.

July 30, 1999

PN 9786C

Attention: Thomas F Ewers
Building & Zoning Commissioner
Village of Lisle
1040 Burlington Avenue
Lisle, Illinois 60532-1898

RE: Installation of Piezometers for
Lockformer Ground Water Ordinance

Dear Mr. Ewers:

Pursuant to a meeting that was held on Thursday, July 28, 1999 with Ed Garske of Carlson Environmental, Inc. (CEI), this letter is being written to formally request permission to install three piezometers on Village of Lisle property. In detail, the locations for the piezometers are as follows:

- On Front Street, east of Venture Street and in the vicinity of the following homes: 724 Front Street, 725 Front Street and 717 Front Street.
- On Front Street, east of Elm Street and in the vicinity of the following homes: 612 Front Street, 606 Front Street, 603 Front Street and 601 Front Street.
- On Riedy Street, in the vicinity of the following homes: 700 Riedy Street, 640 Riedy Street, 701 Riedy Street and 641 Riedy Street.

It is understood that a right-of-way permit is required for performing this type of work. As such, CEI requests that the Village of Lisle issue a permit for the above activities.

CEI would like to schedule the installation of the piezometers at the Village of Lisle's earliest convenience. CEI anticipates that the piezometers will be installed to approximately 50 to 90 feet below grade at the locations that have been pre-approved by the Village of Lisle.

CEI will contact an underground utilities locating service to identify natural gas, electrical, cable, telephone and other underground utilities in the area to be drilled. In addition, prior to drilling activities, a meeting will be scheduled between the appropriate Village representatives, utility representatives and CEI to verify the locations of potential underground utilities.



CARLSON ENVIRONMENTAL, INC.

Mr. Thomas F. Ewers
July 30, 1999

PN 9786C
Page 2 of 2

If you have any further questions or require additional information, please feel free to contact me or Ed Garske at (312) 346-2140. Thank you very much.

Sincerely,

CARLSON ENVIRONMENTAL, INC.

Lisa Meagher, P.G.
Senior Project Manager

cc: Iain D. Vasey, Economic Development Director
 Dan Biederman, Chuhak & Tecson
 Rian Scheel, Lockformer

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IAEN



CARLSON ENVIRONMENTAL, INC.

July 30, 1999

PN 9786C

Attention: Iain D. Vasey
Economic Development Director
Village of Lisle
1040 Burlington Avenue
Lisle, Illinois 60532-1898

RE: Additional Information for Lockformer Ground Water Ordinance

Dear Mr. Vasey:

Please find enclosed a copy of the following information:

- Map depicting the potable wells located immediately south of the Lockformer facility;
- Laboratory results from sampling of the wells shown as green on the above map;
- R-26 calculations for monitoring well MW-500D. This monitoring well shows the highest concentrations of contaminants away from the source area.

If you have any further questions or require additional information, please feel free to contact me or Ed Garske at (312) 346-2140. Thank you very much.

Sincerely,

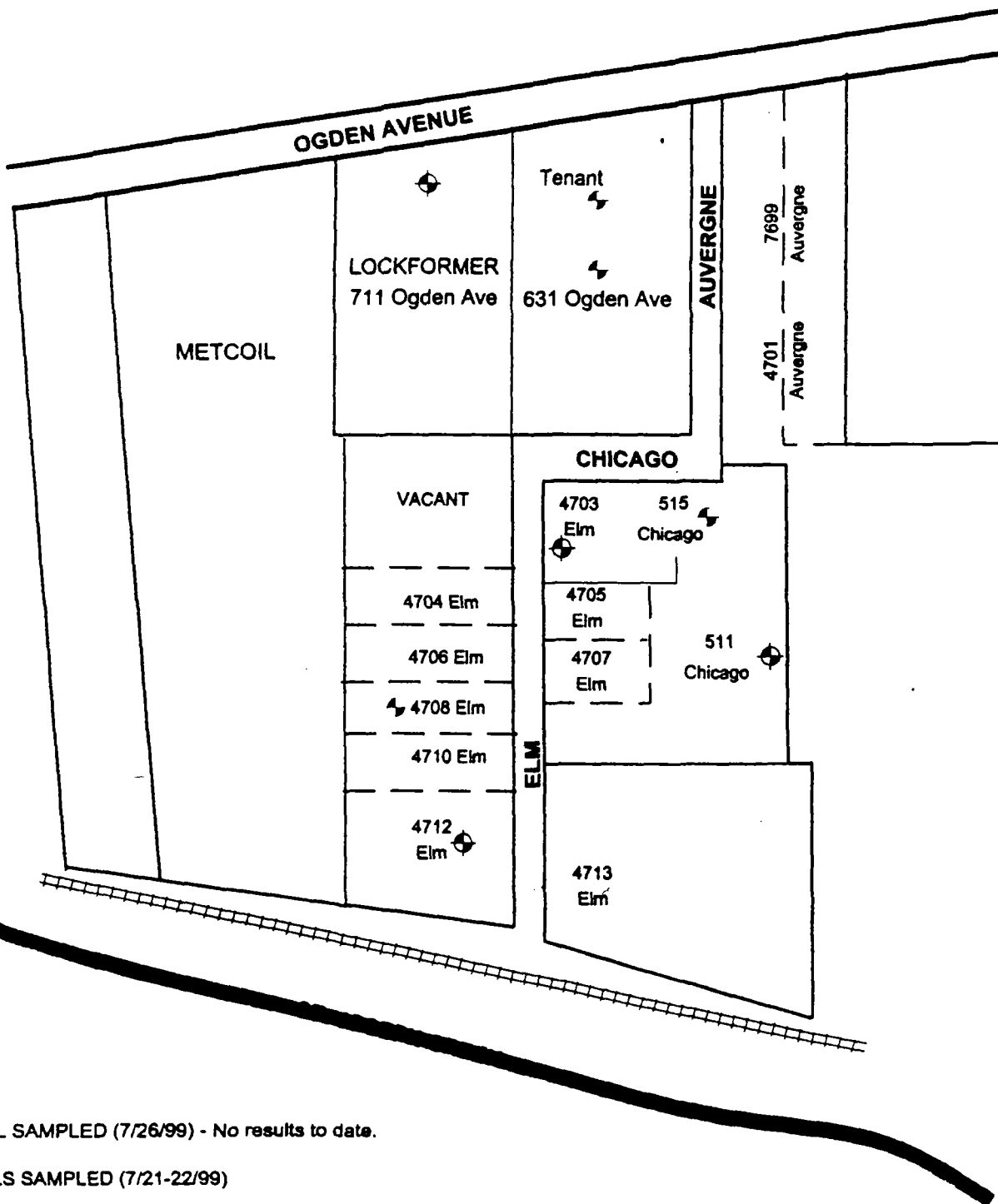
CARLSON ENVIRONMENTAL, INC.

Lisa Meagher
Lisa Meagher, P.G.
Senior Project Manager

cc: Dan Biederman, Chuhak & Tecson
Rian Scheel, Lockformer

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ALL SAMPLE RESULTS -- BELOW DETECTION LIMITS



WELL SAMPLED (7/26/99) - No results to date.

WELLS SAMPLED (7/21-22/99)

POTABLE WELL (per Village of Lisle Information)



CARLSON ENVIRONMENTAL, INC.
65 EAST WACKER PLACE
CHICAGO, ILLINOIS
(312) 346-2140

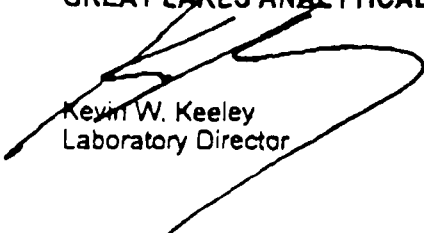
File: p:\87\9786\fig3\wells\wells.doc
PN: 9785C
Drawn By: LPM
Date: 07/23/99
Scale: None

FIGURE THREE
POTABLE WELLS IN VICINITY OF LOCKFORMER
Lockformer - 711 Ogden Avenue
Lisle, Illinois

**GREAT
LAKES
ANALYTICAL**1380 Busch Parkway
Buffalo Grove, Illinois 60089Email: info@glatabs.com
(847) 808-7788 FAX (847) 808-7772Carlson Environmental, Inc.
312 W. Randolph Street
Chicago, IL 60606
Attention: Lisa MeagherClient Project ID: 9786C
Sample Descript: Water: 515 Chicago
Analysis Method: VOC's, EPA 502.2
Lab Number: B907036-01Sampled: Jul 21, 1999
Received: Jul 22, 1999
Analyzed: Jul 23, 1999
Reported: Jul 23, 1999**VOLATILE ORGANIC COMPOUNDS (EPA 502.2)**

Analyte	Reporting Limit mg/L	Sample Results mg/L
Bromodichloromethane	0.10	N.D.
Bromoform	0.10	N.D.
Carbon tetrachloride	0.0050	N.D.
Chlorobenzene	0.10	N.D.
Chlorodibromomethane	0.060	N.D.
Chloroform	0.10	N.D.
1,2-Dibromo-3-chloropropane	0.00050	N.D.
1,2-Dibromoethane	0.00050	N.D.
1,2-Dichlorobenzene	0.60	N.D.
1,4-Dichlorobenzene	0.075	N.D.
1,1-Dichloroethane	4.0	N.D.
1,2-Dichloroethane	0.0050	N.D.
1,1-Dichloroethene	0.0070	N.D.
cis-1,2-Dichloroethene	0.070	N.D.
trans-1,2-Dichloroethene	0.10	N.D.
1,2-Dichloropropane	0.0050	N.D.
cis-1,3-Dichloropropene	0.00050	N.D.
trans-1,3-Dichloropropene	0.00050	N.D.
Methyl Bromide	0.050	N.D.
Methylene chloride	0.0050	N.D.
Tetrachloroethene	0.0050	N.D.
1,2,4-Trichlorobenzene	0.070	N.D.
1,1,1-Trichloroethane	0.20	N.D.
1,1,2-Trichloroethane	0.0050	N.D.
Trichloroethene	0.0050	N.D.
Vinyl chloride	0.0020	N.D.

GREAT LAKES ANALYTICAL


Kevin W. Keeley
Laboratory Director

**GREAT
LAKES
ANALYTICAL**1380 Busch Parkway
Buffalo Grove, Illinois 60089Email: info@glalabs.com
(847) 808-7766 FAX (847) 808-7772Carlson Environmental, Inc.
312 W. Randolph Street
Chicago, IL 60606
Attention: Lisa MeagherClient Project ID: 9786C
Sample Descript: Water: 4708 Elm
Analysis Method: VOC's, EPA 502.2
Lab Number: B907036-02Sampled: Jul 21, 1999
Received: Jul 22, 1999
Received: Jul 22, 1999
Analyzed: Jul 23, 1999
Reported: Jul 23, 1999**VOLATILE ORGANIC COMPOUNDS (EPA 502.2)**

Analyte	Reporting Limit µg/L	Sample Results mg/L
Bromodichloromethane.....	0.10	N.D.
Bromoform.....	0.10	N.D.
Carbon tetrachloride.....	0.0050	N.D.
Chlorobenzene.....	0.10	N.D.
Chlorodibromomethane.....	0.060	N.D.
Chloroform.....	0.10	N.D.
1,2-Dibromo-3-chloropropane.....	0.00050	N.D.
1,2-Dibromoethane.....	0.00050	N.D.
1,2-Dichlorobenzene.....	0.60	N.D.
1,4-Dichlorobenzene.....	0.075	N.D.
1,1-Dichloroethane.....	4.0	N.D.
1,2-Dichloroethane.....	0.0050	N.D.
1,1-Dichloroethene.....	0.0070	N.D.
cis-1,2-Dichloroethene.....	0.070	N.D.
trans-1,2-Dichloroethene.....	0.10	N.D.
1,2-Dichloropropane.....	0.0050	N.D.
cis-1,3-Dichloropropene.....	0.00050	N.D.
trans-1,3-Dichloropropene.....	0.00050	N.D.
Methyl Bromide.....	0.050	N.D.
Methylene chloride.....	0.0050	N.D.
Tetrachloroethene.....	0.0050	N.D.
1,2,4-Trichlorobenzene.....	0.070	N.D.
1,1,1-Trichloroethane.....	0.20	N.D.
1,1,2-Trichloroethane.....	0.0050	N.D.
Trichloroethene.....	0.0050	N.D.
Vinyl chloride.....	0.0020	N.D.

GREAT LAKES ANALYTICAL

Kevin W. Keeley
Laboratory Director

**GREAT
LAKES
ANALYTICAL**1380 Busch Parkway
Buffalo Grove, Illinois 60089Email: info@glalabs.com
(847) 808-7766 FAX (847) 808-7772Carlson Environmental, Inc.
312 W. Randolph Street
Chicago, IL 60606
Attention: Lisa MeagherClient Project ID: 9786C
Sample Descript: Water: 631 Odgen
Analysis Method: VOC's, EPA 502.2
Lab Number: B907036-03Sampled: Jul 21, 1999
Received: Jul 22, 1999
Received: Jul 22, 1999
Analyzed: Jul 23, 1999
Reported: Jul 23, 1999**VOLATILE ORGANIC COMPOUNDS (EPA 502.2)**

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Bromoform.....	0.10	N.D.
Carbon tetrachloride.....	0.0050	N.D.
Chlorobenzene.....	0.10	N.D.
Chlorodibromomethane.....	0.060	N.D.
Chloroform.....	0.10	N.D.
1,2-Dibromo-3-chloropropane.....	0.00050	N.D.
1,2-Dibromoethane.....	0.00050	N.D.
1,2-Dichlorobenzene.....	0.60	N.D.
1,4-Dichlorobenzene.....	0.075	N.D.
1,1-Dichloroethane.....	4.0	N.D.
1,2-Dichloroethane.....	0.0050	N.D.
1,1-Dichloroethene.....	0.0070	N.D.
cis-1,2-Dichloroethene.....	0.070	N.D.
trans-1,2-Dichloroethene.....	0.10	N.D.
1,2-Dichloropropane.....	0.0050	N.D.
cis-1,3-Dichloropropene.....	0.00050	N.D.
trans-1,3-Dichloropropene.....	0.00050	N.D.
Methyl Bromide.....	0.050	N.D.
Methylene chloride.....	0.0050	N.D.
Tetrachloroethene.....	0.0050	N.D.
1,2,4-Trichlorobenzene.....	0.070	N.D.
1,1,1-Trichloroethane.....	0.20	N.D.
1,1,2-Trichloroethane.....	0.0050	N.D.
Trichloroethene.....	0.0050	N.D.
Vinyl chloride.....	0.0020	N.D.

GREAT LAKES ANALYTICAL

Kevin W. Keeley
Laboratory Director

CHAIN OF CUSTODY REPORT

1380 Busch Parkway
Buffalo Grove, IL 60089-4505
(847) 808-7766
FAX (847) 808-7772

20725 Watertown Rd
Brookfield, WI 53501
(414) 798-1030
FAX (414) 798-1050

GREAT LAKES ANALYTIC 8478087772

Client: **CARLSON ENVIRONMENTAL, INC.** Bill To: **CARLSON ENVIRONMENTAL, INC.** LAT: 5 DAY 4 DAY 3 DAY 2 DAY 1 DAY < 24 HR
Address: **65 E. WACKER PL. STE 1500** Address: **SAME.** DATE RESULTS NEEDED: **7/23/99 4pm**

CHICAGO, IL 60601
Report to: **LISA MEAGHER** Phone #: **(312) 344-2140** State & Program: **PALD** Phone #: ()
Fax #: () Fax #: ()
Project: **9786C** AIR BILL NO.
Sampler: **Lisa Meagher** TEMPERATURE UPON RECEIPT: _____
PO/Quote #: _____

FIELD ID, LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE ANALYST	PRESERVATIVES	NO. CONTAINERS	TYPE CONTAINERS	ANALYST	LABORATORY ID NUMBER
1 515 Chicago	7/21/99	1710	W	HCL	3	40ml	X	B907036-01
2 4708 ELM	7/21/99	1720	W	HCL	3	40ml	X	B907036-02
3 631 Ogden	7/22/99	1350	W	HCL	3	40ml	X	B907036-03
4								
5								
6								
7								
8								
9								
10								

RELINQUISHED: **Lisa Meagher** 7/22/99 1510 RECEIVED: **Ken [Signature]** 7/22/99 3:20pm
RELINQUISHED: _____ RECEIVED: _____
RELINQUISHED: _____ RECEIVED: _____

COMMENTS: **Only report detects above Class I, Tier 1 Corrective Action Levels.** PAGE _____ OF _____

07/23 '99 11:24 NO. 040 05/05



CHAIN-OF-CUSTODY RECORD

No. 9876

CARLSON ENVIRONMENTAL, INC.

312 W. Randolph St.

Chicago, IL 60606

(312) 346-2140

PROJ. NO.

PROJECT NAME

SAMPLERS: (Signature)

NUMBER
OF CONTAINERS

ANALYSIS DESIRED
(INDICATE
SEPARATE
CONTAINERS)

ITEM NO.

SAMPLE
NUMBER

DATE

TIME

COMP

GRAB

SAMPLE DESCRIPTION
(INCLUDE MATRIX AND
POINT OF SAMPLE)

REMARKS

1

2

3

4

5

6

7

8

9

10

Relinquished by: (Signature)

Date/Time

Received by: (Signature)

REMARKS

Relinquished by: (Signature)

Date/Time

Received by: (Signature)

Relinquished by: (Signature)

Date/Time

Received for Laboratory by:
(Signature)

P-26 CAL.

Datasheet B: Physical Soil Parameters for the RBCA Equations

Area(s)/Location(s) at the site, if applicable:

Predominant Soil Type (e.g., clay, sand, silty clay, etc.):

Surface (top 1 meter) or Subsurface (below 1 meter):

Site-specific values [i.e., field measurements (F=) or calculated values using the SSL equation (Sxx=)] a to be reported if they are used in developing the Tier 2 cleanup objectives. Acceptable procedures for obtaining these values are identified in Appendix C, Table F of TACO.

Parameter	Soil Type	Default Value	Units	Field Measurement or Calculated	Value
pb (Soil Bulk Density)	Surface and/or Subsurface soils	1.5	g/cm ³	F = Surface Subsurface	1.50 1.50
	Gravel	2.0			
	Sand	1.8			
	Silt	1.6			
	Clay	1.7			
w (Moisture Content)	Surface and/or Subsurface Soils	0.1	gwater/gsoil (unitless)		
	Surface Soils	0.1			
	Subsurface Soils	0.2			
foc (Organic Carbon Content)	Surface Soils	0.006	g/g (unitless)	Surface Subsurface	0.006 0.002
	Subsurface Soils	0.002			
θ_T (Total Soil Porosity)	Surface and/or Subsurface Soils	0.43	cm ³ /cm ³ (unitless)	Surface Subsurface	0.43 0.43
	Gravel	0.25			
	Sand	0.32			
	Silt	0.40			
	Clay	0.36			
θ_{as} (Air-filled Soil Porosity)	Surface Soils	0.28	cm ³ /cm ³ (unitless)	Surface Subsurface	0.28 0.13
	Subsurface Soils	0.13			
	Gravel	0.05			
	Sand	0.14			
	Silt	0.24			
	Clay	0.19			
θ_{ws} (Water-filled Soil Porosity)	Surface	0.15	cm ³ /cm ³ (unitless)	Surface Subsurface	0.15 0.30
	Subsurface Soils	0.30			
	Gravel	0.20			
	Sand	0.18			
	Silt	0.16			
	Clay	0.17			

Datasheet C: Chemical Properties

Chemical	Solubility in Water (S) (mg/L)	Diffusivity in Air (Di) (cm ² /s)	Diffusivity in Water (Dw) (cm ² /s)	Henry's Law Constant (H' @ 25°C)	Organic Carbon Partition Coefficient (Koc - L/kg)	First Order Decay Constant (λ - 1/day)
Dichloroethylene, cis-1,2-	3.50E+003	7.36E-002	1.13E-005	1.67E-001	3.55E+001	0.000240
Trichloroethylene	1.10E+003	7.90E-002	9.10E-006	4.22E-001	1.66E+002	0.000420

Datasheet D: Toxicological Properties

Chemical	Carcinogenicity Information			Non-Carcinogenicity Information					
	Unit Risk Factor 1/(mg/m ³)	Inhalation Slope Factor 1/(mg/kg·day)	Oral Slope Factor 1/(mg/kg·day)	Chronic Oral RfD (mg/kg·day)	Subchronic Oral RfD (mg/kg·day)	Chronic Inhalation RfD (mg/kg·day)	Subchronic Inhalation RfD (mg/kg·day)	Chronic RfC (mg/m ³)	Subchronic RfC (mg/m ³)
Dichloroethylene, cis-1,2-			0.000	0.010	0.100				
Trichloroethylene	0.000001	0.006	0.011	0.006	0.006				

Datasheet RBCA-VII. Concentration of Contaminant in Groundwater Source

Datasheet RBCA-VII is to be used to predict the groundwater concentration at a specified distance from the source as calculated by the equation in Appendix C of TACO: Equation R26 (residential, industrial/ commercial and construction worker scenarios). Since values listed in Datasheet RBCA-V are used in this evaluation, this datasheet must also be submitted.

C _{source} (mg/L)	See below	α_y (cm)	333
X (cm)	0,000.00	S _d (cm)	200
α_x (cm)*	1,000	α_z (cm)	50
λ (1/day)***	See below	K (cm/d)	45.79
U (cm/d)*	0.6390	i (unitless)	0.0060
S _w (cm)	1,000	θ_T (unitless)**	0.43

* α_x , α_y , α_z , and U are reported on Datasheet RBCA-V ** Physical Soil Parameter (see Datasheet B)

*** Chemical Properties (see Datasheet C)

Chemical Name	λ (1/day)	C _{source} * (mg/L)	C(x) (mg/L)
Dichloroethylene, cis-1,2-	0.0002400	2.90000	2.42E-02
Trichloroethylene	0.0004200	1.70000	2.81E-03

* Note: C_{source} is the measured concentration at the source for this form.

Datasheet RBCA-V. Migration to Ground Water - Class 1

Datasheet RBCA-V is to be used to propose soil cleanup objectives for the migration to ground water exposure route calculated by the equation in Appendix C, Table C of TACO: Equation R12 (residential, industrial/commercial and construction worker scenarios). Equations described under RBCA-VI and RBCA-VIII as well as the equations in 35 Ill. Adm. Code 620, Subpart F may also be required to generate some of the input values for equation R12. Note; use 35 Ill. Code 620, Subpart F to calculate cleanup objectives for noncarcinogens. Since values listed in RBCA-XIII are used in this evaluation, this datasheet must be submitted. In cases where the target cancer risk (TR) exceeds 1 in 1,000,000, Datasheet -VI must also be submitted.

Land Use Scenario: **ALL**

Institutional Control YES NO
Engineered Barrier YES NO

GW _{source} (mg/L)	See below	X (cm)	0,000.00
LF _{sw} [(mg/L)/(mg/kg)]*	See below	α_x (cm)	1,000
GW _{comp} (mg/L)**	See below	α_y (cm)	333
C(x)/C _{source} (unitless)***	See below	α_z (cm)	50
U (cm/d)	0.6390	S _w (cm)	1,000
K (cm/d)	45.792	λ (1/d)****	See below
i (cm/cm)	0.0060	S _d (cm)	200
θ_T (cm ³ /cm ³ -soil)*****	0.43		

* LF_{sw} reported on Datasheet RBCA-XIII

** GW_{comp} reported on Datasheet RBCA-VI

*** C(x)/C_{source} reported on Datasheet RBCA-VI **** Chemical Parameters (see Datasheet C)

***** Physical Soil Parameters (see Datasheet B)

Chemical Name	GW _{source} (mg/L)	LF _{sw} (mg/L)/(mg/kg)	GW _{comp} (mg/L)	C(x)/C _{source} (unitless)	λ (1/day)	Soil Cleanup Objective (mg/kg)
Dichloroethylene, cis-1,2-	8.40E+00	2.10E+00	0.07	8.33E-03	0.000240	4.00E+00
Trichloroethylene	3.02E+00	1.05E+00	0.005	1.66E-03	0.000420	2.86E+00

Datasheet RBCA-V. Migration to Ground Water - Class 2

Datasheet RBCA-V is to be used to propose soil cleanup objectives for the migration to ground water exposure route calculated by the equation in Appendix C, Table C of TACO: Equation R12 (residential, industrial/commercial and construction worker scenarios). Equations described under RBCA-VI and RBCA-VIII as well as the equations in 35 Ill. Adm. Code 620, Subpart F may also be required to generate some of the input values for equation R12. Note; use 35 Ill. Code 620, Subpart F to calculate cleanup objectives for noncarcinogens. Since values listed in RBCA-XIII are used in this evaluation, this datasheet must be submitted. In cases where the target cancer risk (TR) exceeds 1 in 1,000,000, Datasheet -VI must also be submitted.

Land Use Scenario: **ALL**

Institutional Control	YES	NO	
Engineered Barrier	YES	NO	

GW _{source} (mg/L)	See below	X (cm)	0,000.00
LF _{sw} [(mg/L)/(mg/kg)]*	See	α_x (cm)	1,000
GW _{comp} (mg/L)**	See	α_y (cm)	333
C(x)/C _{source} (unitless)***	See below	α_z (cm)	50
U (cm/d)	0.6390	S _w (cm)	1,000
K (cm/d)	45.792	λ (1/d)****	See below
i (cm/cm)	0.0060	S _d (cm)	200
θ_T (cm ³ /cm ³ soil)*****	0.43		

* LF_{sw} reported on Datasheet RBCA-XII

** GW_{comp} reported on Datasheet

*** C(x)/C_{source} reported on Datasheet RBCA-VI

**** Chemical Parameters (see

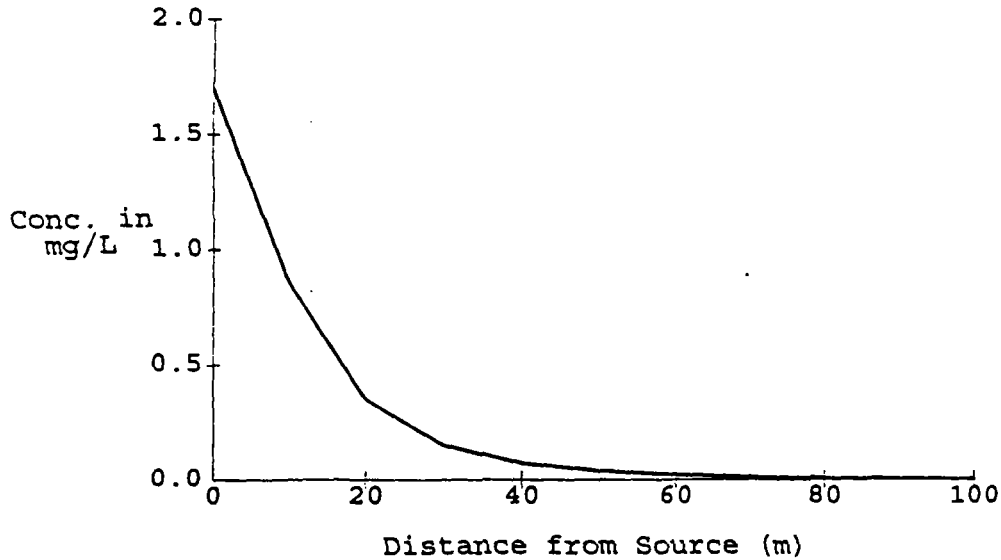
***** Physical Soil Parameters (see Datasheet

Chemical Name	GW _{source} (mg/L)	LF _{sw} (mg/L)/(mg/kg)	GW _{comp} (mg/L)	C(x)/C _{source} (unitless)	λ (1/day)	Soil Cleanup Objective (mg/kg)
Dichloroethylene, cis-1,2	2.40E+01	2.10E+00	0.2	8.33E-03	0.000240	1.14E+01
Trichloroethylene	1.51E+01	1.05E+00	0.025	1.66E-03	0.000420	1.43E+01

Lockformer Site

Calculated Ground Water Information

Trichloroethylene



Distance to Meet Ground Water Objectives

Class I

87.47 m.

Class II

56.78 m.

Calculated Ground Water Concentrations

<u>Distance from Source (m)</u>	<u>Calculated Concentration (mg/L)</u>
0	1.70E+00
10	8.63E-01
20	3.48E-01
30	1.51E-01
40	7.24E-02
50	3.76E-02
60	2.07E-02
70	1.20E-02
80	7.18E-03
90	4.44E-03
100	2.81E-03



CARLSON ENVIRONMENTAL, INC.

July 30, 1999

PN 9786C

Attention: Thomas F. Ewers
Building & Zoning Commissioner
Village of Lisle
1040 Burlington Avenue
Lisle, Illinois 60532-1898

RE: Installation of Piezometers for
Lockformer Ground Water Ordinance

Dear: Mr. Ewers:

Pursuant to a meeting that was held on Thursday, July 28, 1999 with Ed Garske of Carlson Environmental, Inc. (CEI), this letter is being written to formally request permission to install three piezometers on Village of Lisle property. In detail, the locations for the piezometers are as follows:

- On Front Street, east of Venture Street and in the vicinity of the following homes: 724 Front Street, 725 Front Street and 717 Front Street.
- On Front Street, east of Elm Street and in the vicinity of the following homes: 612 Front Street, 606 Front Street, 603 Front Street and 601 Front Street.
- On Riedy Street, in the vicinity of the following homes: 700 Riedy Street, 640 Riedy Street, 701 Riedy Street and 641 Riedy Street.

It is understood that a right-of-way permit is required for performing this type of work. As such, CEI requests that the Village of Lisle issue a permit for the above activities.

CEI would like to schedule the installation of the piezometers at the Village of Lisle's earliest convenience. CEI anticipates that the piezometers will be installed to approximately 50 to 90 feet below grade at the locations that have been pre-approved by the Village of Lisle.

CEI will contact an underground utilities locating service to identify natural gas, electrical, cable, telephone and other underground utilities in the area to be drilled. In addition, prior to drilling activities, a meeting will be scheduled between the appropriate Village representatives, utility representatives and CEI to verify the locations of potential underground utilities.